

1 IN THE CLAIMS

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3 Please cancel Claims 1-29 and add new Claims 30-52. This listing of claims will replace  
4 all prior versions, and listings, of claims in the application:  
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6 --1. - 29. (Cancelled)

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8 30. (New) A system for interfacing a plurality of remote devices with input/output devices at  
9 a plurality of user locations, said system comprising:

10 a switch selectively operable to connect remote devices with input/output devices located  
11 at one or more user locations such that users at said user locations can interact  
12 with said remote devices, to connect a helper circuit with one or more of said  
13 input/output devices, to establish bi-directional communication between said  
14 input/output devices and said remote devices through said switch, and to associate  
15 said helper circuit with said input/output devices at any one of said user locations  
16 such that said selected input/output device is connected to said helper circuit  
17 through said switch; and

18 a control circuit coupled to said switch for controlling said switch, said control circuit  
19 operable to run an interactive program for selecting one or more of said remote  
20 devices, and to instruct said switch to connect said input/output devices that  
21 transmit helper codes to said helper circuit such that users at said user locations  
22 can selectively interact with said helper circuit to select said remote devices; and

1 a code recognition circuit coupled to said helper circuit for receiving input signals from  
2 each of said input/output devices, said code recognition circuit for detecting one  
3 or more predetermined helper codes in said input signals and for transmitting said  
4 helper codes to said control circuit.  
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6 31. (New) A system according to claim 30, wherein said interactive program includes  
7 accessing a database associating one or more users with access rights to said remote devices and  
8 controlling access to said remote devices according to said access rights set forth in said  
9 database.  
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11 32. (New) A system according to claim 31, wherein said interactive program includes  
12 displaying representations of each available said remote devices on a display device connected to  
13 said helper circuit such that display of said representations is different for different ones of said  
14 users.  
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16 33. (New) A system according to claim 30, wherein said control circuit is separate from said  
17 remote devices.  
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1 34. (New) A system according to claim 33, wherein said control circuit includes a switch  
2 control circuit separate from said helper circuit, said switch control circuit being connected to  
3 said switch so that said switch control circuit can actuate said switch, said helper circuit being  
4 connected to said switch control circuit for transmitting commands to said switch control  
5 computer.

6  
7 35. (New) A system according to claim 34, wherein said code recognition circuit is operative  
8 to recognize one or more action codes included in data input from said input/output devices and  
9 to transmit said action codes to said switch control circuit.

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11 36. (New) A system according to claim 35, wherein said interactive program defines a  
12 running set of said remote devices associated with each set of said input/output devices, and  
13 wherein said action codes include change server codes indicative of connecting one of said  
14 input/output devices to another of said remote devices.

2<sup>nd</sup> old  
decision

37. (New) An apparatus for connecting a plurality of input devices at one or more user locations to one or more remote devices, said apparatus comprising:

a plurality of user interface circuits for receiving input signals from any one of a plurality of input devices, each said user interface circuit being coupled to at least one of said input devices at a user location remote from each said user interface circuit;

a plurality of remote device interface circuits for transmitting signals to one or more remote devices, each said remote device interface circuit coupled to at least one of said remote devices at a remote location;

a switching circuit for selectively associating said user interface circuits and said remote device interface circuits such that said input signals will be transmitted to said remote device coupled to said associated remote device interface circuit; and

a code recognition circuit associated with said user interface circuits, said code recognition circuit operative to detect one or more command codes in said input signals and to provide a code output signal including first data representing at least one of said command codes and second data representing identification of said user interface circuit where said command code was detected.

1 38. (New) A system according to claim 37, wherein at least one of said code recognition  
2 circuits includes a plurality of user interface processors, each said user interface processor being  
3 connected to one or more of said user interface circuits, the system further including at least one  
4 control processor and a control data channel connecting a set of said user interface processors  
5 with each said control processor, each said control processor accepting data representing said  
6 command codes and assigning address data based at least in part upon identity of said user  
7 interface processor which sent said data.

8  
9 39. (New) A system according to claim 38, wherein each said user interface processor is  
10 associated with only one said user interface circuit.  
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12 40. (New) A system according to claim 38, wherein said at least one control processor  
13 includes a plurality of said control processors each associated with a different set of user  
14 interface processors, each said control processor being operative to assign said address data based  
15 in part upon identity of said control processor and in part upon identity of said user interface  
16 processor within a set of said user interface processors associated with said control processor.  
17.

18 41. (New) A system according to claim 38, wherein each said user interface processor is  
19 operative to delete said command codes from input data signals supplied to said user interface  
20 processor, and to pass said input data signals without said command codes into a user data  
21 channel, said switch being operative to connect a user data channel of said user interface  
22 processors with said remote devices.

1 42. (New) A system according to claim 41, wherein said remote devices and said user  
2 interface circuits include video connections, said switch being operative to connect said video  
3 connection of each said remote device to a video connection of said user interface circuit  
4 associated with said remote device.

5 *claim 28*  
6 43. (New) A method of interfacing a plurality of remote devices with one or more  
7 input/output devices at a plurality of user locations, said method comprising the steps of:  
8 receiving input signals from one or more input devices located at one or more user  
9 locations;  
10 *PH* conveying said input signals to a code recognition circuit;  
11 detecting one or more predetermined helper codes in said input signals, said helper codes  
12 being transmitted to a control circuit;  
13 operating said control circuit to actuate a switch in response to said helper codes to  
14 connect said input/output device that supplied said helper codes with a remote  
15 device helper circuit;  
16 running an interactive program in said helper circuit for selecting one or more remote  
17 devices, said helper circuit interacting with a user at said input/output device that  
18 supplied said helper codes; and  
19 actuating said switch to connect or disconnect one or more of said remote devices  
20 selected during operation of said interactive program with said input/output  
21 device.  
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1 44. (New) A method according to claim 43, wherein said detecting is performed at one or  
2 more central locations remote from said user locations, said helper codes and said input signals  
3 being transmitted on a common channel from said user locations to said one or more central  
4 locations.

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6 45. (New) A method according to claim 43, said method further comprising the steps of:  
7 detecting action codes distinct from said helper codes in said input signals; and  
8 actuating said switch to connect or disconnect connections between said remote devices  
9 and said input/output devices in response to said action codes without use of said  
10 interactive program.

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12 46. (New) A method according to claim 45, wherein said steps of actuating said switch are  
13 performed by a switching circuit separate from said helper circuit.

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15 47. (New) A method according to claim 45, said method further comprising the step of  
16 maintaining data defining a running set of said remote devices for each said user location, said  
17 actuating said switch without use of said interactive program further including switching between  
18 said remote devices of said running set for said input/output device that supplied said action  
19 codes.

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21 48. (New) A method according to claim 45, wherein a set of said input/output devices at a  
22 particular one of said user locations includes multiple display devices.

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49. (New) A method according to claim 48, said method further comprising the step of:  
maintaining data defining a running set of said remote devices for each said user location,  
said actuating said switch without use of said interactive program further  
including switching between said remote devices of said running set for said  
particular one of said user locations to different ones of said multiple display  
devices in response to said action codes.

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